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Amendment
Attorney Docket No. S63.2N-6259-US03

Amendments To The Claims:

1. (Cancelled)

2. (Currently Amended) A treatment method as in claim [[1]] 4 wherein the inflation pressure produces a hoop stress on the balloon wall of from about 35,000 psi to about 65,000 psi.

3. (Cancelled)

4. (Currently Amended) A treatment method as in claim 3 wherein comprising
providing a balloon mounted on a catheter at a site for treatment within a vascular system;
and

pressurizing the balloon to effect a treatment,

wherein

the balloon is pressurized to an inflation pressure which produces a hoop stress on the
balloon wall of about 35,000 psi or more,

the balloon is formed of a material comprising a PEN polymer selected from ethylene
naphthalate homopolymer and copolymers, and

the PEN polymer material is

a) a polyethylene naphthalate homopolymer or

b) a crystallizable copolyester comprising residues of

i) ethylene glycol,

ii) naphthalene dicarboxylic acid, and

iii) at least one PA residue, said PA residue being a member of the group
consisting of residues of terephthalic acid and isophthalic acid, the naphthalene
dicarboxylic acid residues comprising about 5% or more of the sum of
naphthalene dicarboxylic acid residues and PA residues in the copolyester, and,

the balloon characterized by an ability to withstand a hoop stress of at least 50,000 psi without
bursting.

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5. (Original) A method as in claim 4 wherein the PEN polymer material is a polyethylene naphthalate homopolymer.

6. (Original) A method as in claim 4 wherein the balloon has at least two structural layers, one being said PEN polymer layer and one being a layer of a second thermoplastic polymer material.

7. (Original) A method as in claim 4 wherein the balloon has inner and outer sides and the second thermoplastic polymer material is a coextruded layer on the outer side thereof.

8. (Currently Amended) A method as in claim 4 wherein the balloon has an ability to withstand a hoop stress of within the range of 55,000 to 65,000 psi without bursting.

9. (Currently Amended) A method as in claim [[1]] 4 wherein the balloon is formed of a single structural polymer layer.

10. (Currently Amended) A method as in claim 1 wherein comprising
providing a balloon mounted on a catheter at a site for treatment within a vascular system;
and

pressurizing the balloon to effect a treatment,
wherein
the balloon is pressurized to an inflation pressure which produces a hoop stress on the
balloon wall of about 35,000 psi or more, and
the balloon has a radial expansion of about 3% or less when inflation pressure is
increased from 4 atm to burst.

11. (Currently Amended) A method as in claim 1 wherein comprising
providing a balloon mounted on a catheter at a site for treatment within a vascular system;
and
pressurizing the balloon to effect a treatment.

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wherein

the balloon is pressurized to an inflation pressure which produces a hoop stress on the balloon wall of about 35,000 psi or more, and

the balloon comprises a structural layer of a crystallizable copolyester comprising residues of

- i) ethylene glycol,
- ii) naphthalene dicarboxylic acid and
- iii) at least one PA residue, said PA residue being a member of the group consisting of residues of terephthalic acid and isophthalic acid, the naphthalene dicarboxylic acid residues constituting 5-20% of the sum of naphthalene dicarboxylic acid residues and PA residues.

12. (Original) A method as in claim 11 wherein said PA residues are terephthalic acid residues.

13. (Original) A method as in claim 11 wherein the balloon has a single structural polymer layer.

14. (Original) A method as in claim 11 wherein the balloon further comprises a non-structural layer of a lubricious polymer.

15. (Original) A method as in claim 11 wherein the balloon further comprises a layer of a second polymer, said second polymer being a polybutylene naphthalate homopolymer or a butylene naphthalate copolymer.

16. (Currently Amended) A method as in claim 1 wherein comprising
providing a balloon mounted on a catheter at a site for treatment within a vascular system;
and
pressurizing the balloon to effect a treatment,

wherein

the balloon is pressurized to an inflation pressure which produces a hoop stress on the balloon wall of about 35,000 psi or more, and

the balloon comprises at least two structural layers, one layer being a PEN polymer layer,

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the PEN polymer material being

- a) a polyethylene naphthalate homopolymer or
- b) a crystallizable copolyester comprising residues of
 - i) ethylene glycol,
 - ii) naphthalene dicarboxylic acid and
 - iii) at least one PA residue, said PA residue being a member of the group consisting of residues of terephthalic acid and isophthalic acid, the naphthalene dicarboxylic acid residues at least 80% of the sum of naphthalene dicarboxylic acid residues and PA residues in the copolyester, and

one layer being a polybutylene naphthalate homopolymer or a butylene naphthalate copolymer.

17. (New) A treatment method as in claim 10 wherein the inflation pressure produces a hoop stress on the balloon wall of from about 35,000 psi to about 65,000 psi.

18. (New) A treatment method comprising

providing a balloon mounted on a catheter at a site for treatment within a vascular system;
and

pressurizing the balloon to effect a treatment,

wherein

the balloon has a radial expansion of about 3% or less when inflation pressure is increased from 4 atm to burst.